

Amendments to the Specification:

1. Please replace the title of the invention with the following:

ANTI HIJACKING COCKPIT SHIELD

2. Please add, before the DETAILED DESCRIPTION, the following sections:

BACKGROUND OF THE INVENTION

This invention relates generally to a means for segregating the cockpit of an aircraft from the passenger compartment. More particularly, this invention relates to a stationary device which would prevent access to the cockpit while in flight as well as provide high impact force projectile protection for the cockpit and the passenger compartment.

Traditionally, entry into the cockpit of a plane has been through the passenger compartment. The relatively easy access to the cockpit provides opportunity for mischief and increases security concerns. Additionally, after the events on September 11, 2001 commercial pilots in the United States were authorized to protect the flight deck using firearms and other personal protective equipment. Eliminating access and providing ballistic projectile protection to the cockpit would significantly reduce the need for firearms and the opportunity for commandeering the aircraft.

BRIEF SUMMARY OF THE INVENTION

The present invention allows both aircraft operators and aircraft manufacturers to isolate the cockpit to prevent hijacking.

The dividing wall utilizes a rigid metallic inner wall and an outer layer of ballistic resistant material to prevent hijacking. The inner wall comprises metallic studs and sheeting connected by rivets. The studs are fastened to the aircraft's fuselage to prevent movement of the shield and to provide structural support. The metallic sheeting denies cockpit access, projectile penetration, and gives additional structural support. The ballistic resistant layer covering the metallic sheeting is located on its outer surface and faces the passenger compartment. This design prevents deflection and penetration of projectiles such as a bullet.

The present invention serves three purposes. First, it completely isolates the pilots in the cockpit from the passengers in the passenger compartment. Second, it protects both the

pilots and the passengers by prohibiting projectile penetration into the cockpit and protects passengers from projectile ricochet or deflection. Third, because the inner wall is made of a rigid material with excellent strength to weight properties and is connected by metallic studs having the same properties to the aircraft fuselage frame members it provides additional structural support to the aircraft.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

FIGURE 1 is a sectional view of an aircraft fuselage showing the anti-hijacking cockpit shield with portions blown away.

FIGURE 2 is a top sectional view of a portion of the cockpit shield of FIGURE 1.

FIGURE 3 is a side sectional view of a portion of the cockpit shield of FIGURE 1.

3. Please replace the sole paragraph in the DETAILED DESCRIPTION with the following paragraphs:

The present invention is, primarily, a stationary dividing wall system capable of providing a protective and isolative barrier. The dividing wall has been designed to provide ballistic resistance from Class 1 through Class 5 firearm threats. The dividing system comprises an inner wall 4 attached to the fuselage of a plane and a ballistic resistant non-deflective layer 5 which covers the outer surface of the inner wall. Preferably, the system has an estimated density of 4 g/cm³. Additionally, the inner wall 4 provides structural support to the supporting members of the aircraft.

Preferably, the inner wall 4 comprises metallic studding 6 and metallic sheeting 7 attached to the studs 6 by rivets 8. The metallic studs 6 may be titanium, aluminum, or a steel alloy. They should be evenly spaced sixteen inches apart. The studs 6 should be connected to the above and side fuselage supporting members. Finally, the studs 6 should extend one foot below passenger compartment flight deck to the supporting members of the fuselage. The metallic sheeting 7 may be titanium, aluminum, or a steel alloy or a combination.

Preferably, the ballistic proof materials usable as the ballistic resistant non-deflective layer 5 include the material sold under the trademarks KEVLAR™ by DuPont and SPECTRA™ by Honeywell. These materials can be used separately or in conjunction with each other. By jacketing the outer surface of a titanium sheet with these materials a high

impact projectile, such as a bullet, can not penetrate to the cockpit, nor can it deflect or ricochet off the metallic sheet and strike an individual in the passenger compartment. The ballistic resistant layer 5 should be attached to the metallic sheeting 7 using an adhesive. Preferably, the adhesive should be applied so that a hermetic seal will exist and a semi-elastic bond is formed.

4. Please replace the sole paragraph in the ABSTRACT with the following paragraph:

An aircraft cockpit reinforced stationary dividing wall system that completely separates the cockpit flight deck from the passenger compartment. The dividing wall is an engineered unit designed to be stationary, lightweight, and a rigid bulletproof enclosed wall system. The unique design requires only a few components allowing a variety of full height walls to be constructed while avoiding large inventory and robust manufacturing provisions. The dividing wall is a vertical panel comprising studding, plates, and an outer ballistic resistant layer. The wall studding and metallic sheets may be readily secured by rivets. The studs should be attached to the frame assembly that supports the fuselage skin panels and the outer ballistic resistant layer should be adhesively attached to the metallic sheets.